Massachusetts Association of Conservation Commissions

protecting wetlands, open space and biological diversity through education and advocacy

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Re: MACC SWMI Framework Comments

The proposed Sustainable Water Management Initiative (SWMI, or "the Initiative") is a complex and extremely important series of regulations relating to Massachusetts rivers. Here are the stakes: If the Initiative gets it right, aquatic sustainability of our rivers occur. If the Initiative gets it wrong, river degradation--an increasing problem--continues its downward spiral. Conservation commissions protect rivers and wetlands every day in recognition of the values they provide, including water supply. Water withdrawal permits issued by the Department of Environmental Protection under the Water Management Act affect those same resources. Sustainable water management is a balancing act to preserve sufficient water supplies for our communities *and* provide sufficient river flows for aquatic life. MACC's analysis of the Initiative follows:

MACC readily acknowledges the extensive time and effort that state agencies and many outside stakeholders have invested over the past two years in the SWMI development process. As we noted in our March 15, 2012 *Action Alert*, this multiyear process has resulted in a proposed new framework for water allocation which includes a scientifically based streamflow categorization system. This is the first time the state has worked with federal and state agencies to come up with science-based streamflow criteria through enforceable regulation; the state deserves applause for addressing streamflow in a meaningful way. While the streamflow criteria in the draft Initiative are imperfect (for reasons that will be discussed below), they are a major step forward for the Commonwealth.

The Initiative attempts to balance human and economic needs for water while protecting freshwater life in rivers. It represents a significant gain for the environment in terms of defining levels of flow depletion that may create adverse impacts, based on the best available science. The new tools have the potential to provide a degree of environmental protection that does not exist today.

However, as noted in MACC's recent *Action Alert*, the **"safe yield"** portion of the framework is problematic. Safe yield (that is, the maximum amount of water that can be pumped continuously from a water source, even during the driest periods) is the only provision of the Water Management Act

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that establishes a firm upper limit for water withdrawals. Unfortunately, the proposed provisions allow agencies wide discretion to ignore stream-based criteria, potentially exposing rivers and streams to unacceptable withdrawals. Environmental protection is only one of many factors in a decision-making process that, as drafted, remains imprecise and poorly prescribed. Political administrations come and go, and regulatory interpretations may consequently vary. The potential for political interference is a real consideration that has, unfortunately, affected agency decisions in the past.

There are also provisions in the Initiative requiring minimization of impacts from water use and mitigation for withdrawals in **stressed sub-basins** or where significantly larger withdrawals are requested. Under the proposed framework, minimization measures will be based on whether the measure is "feasible," taking into account soft factors such as cost, level of improvement, and if the measure is under the control of a water supplier and uses "adaptive management techniques." Our concern is that these factors are all highly interpretable.

Further, there are requirements for development and implementation of plans to **improve the condition of water resources** that are in the degraded categories of Flow Level 4 or 5, which are also based on feasibility, defined as cost and other soft factors. These new provisions acknowledge the need to restore flow-stressed streams. Yet there are no numeric or time-specific targets, and the effectiveness of these measures will rely solely upon the permitting agency, which may encounter multiple pressures from competing groups.

The MACC *Action Alert* focused on the formula for calculating "safe yield" because it is the critical backstop for water allocation and the underlying issue of allocation initiated the SWMI process. The *Action Alert* also discussed a critical second element of the proposed package—science-based streamflow criteria. MACC strongly supports the streamflow criteria, but is concerned about how that will be enforced in regulation, given the elective nature of the permitting framework.

Streamflow criteria are intended to ensure that healthy streams remain healthy, and that presently degraded streams gradually improve. The new criteria are based on a model created by the United States Geological Survey (USGS) that analyzes the impact of water withdrawals for 1400 streams and river basins. The concepts of protection of streamflow, both during the low flow periods and in headwaters of streams where flows are lowest, are incorporated into the seasonal streamflow criteria that will be enforced through regulation.

MACC's warning that the state's proposal "allows for excessive withdrawals during summer and low flow periods which could prove to be ecologically disastrous" is based on our concern, informed by permitting decisions over the past two decades, that only an ecologically protective bright line for safe yield will ensure that allocations are properly limited.

- Recommendation: We encourage EEA to design and implement a strong new regulatory system to prevent ecologically negative outcomes, which must include regulations with clear numeric standards that place an upper limit on withdrawals based on scientifically corroborated minimum stream flow.

Positively, the framework requires *all* water suppliers to comply with conservation restrictions that limit outdoor watering in dry periods. Currently only half of existing water suppliers are subject to these restrictions. The framework also uses a more accurate definition of low flow conditions to identify

periods in which lawn watering would be restricted, and increases the number of days per year when watering restrictions will be triggered.

- Recommendation: MACC urges that outdoor watering restrictions be further tightened.

MACC notes that as now proposed, the framework allows less lawn watering than the current restrictions, but still allows watering one day per week when streams flow at ecologically dangerous levels. **For the new USGS analytical tools to be used as intended, aquatic habitat must trump the old standards that are biased toward water suppliers and outdoor watering.**

In that regard, MACC's Action Alert noted that the proposal "will permanently grandfather existing excessive withdrawals and ensure continued river degradation." Unarguably, the proposed framework gives baseline uses preferential status compared to new or increased withdrawals. MACC understands the need to maintain existing supplies for human use. However, our opinion stands that the proposed baselines grandfather uses in a way not contemplated in the law. As emphasized earlier, while the framework requires those who withdraw water from degraded areas for the first time to minimize the impacts of current withdrawals to increase streamflow and improve aquatic health, no quantifiable targets or requirements are set.

- Recommendation: Greater incentives for community water conservation should be mandated in *all* watersheds, whether currently stressed or not.

While many communities have made major strides in water conservation and efficiency in recent years, a great deal of potential remains for further improvement. Water efficiency not only helps the rivers, it makes more water available for economic growth, without the expense of developing new supplies.

In summary, we strongly believe there is an enormous untapped potential for efficiency and water conservation that is insufficiently emphasized in the current draft. Further, the final framework should better reconcile streamflow categorization and the metrics of safe yield.

It is critical to assure the protection and restoration of freshwater ecosystems, particularly given the likelihood in the future of erratic impacts to resources from climate change. Consequently, we seek assurance that safe yields are, in fact, safe for *both* human and aquatic communities, free as possible from potential political interference—and predicated upon the science-based withdrawal metrics defined by the new USGS analytical tools.

Thank you.

Patrick Garner, MACC President